

## REMARKS

In response to the Office Action dated August 23, 2003, Applicants respectfully request reconsideration based on the above drawing replacement sheets and the following remarks.

Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 44, 50, 55, and 60 have been allowed. Claims 1-14, 16-19, 26, 33, 39-43, 45-49, 51-54, 56-59, and 61-62 have been rejected. Claims 10, 15, 20-25, 27-32, and 34-38 have been objected to by the Examiner. Claims 1-62 are now pending in the application.

### ***Claim Rejections Under 35 U.S.C. § 103***

Claims 1-5, 11-14, 18-19, 26, 33, 39-41, 45, 52, 56-57, and 61-62 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson, U.S. Patent Number 6,448,564 (hereinafter "Johnson") in view of Anthony, U.S. Patent Number 6,479,427 (hereinafter "Anthony") for the reasons stated on pages 2-7 of the Office Action. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claim 1 is believed to be patentable over Johnson in view of Anthony because neither Johnson nor Anthony, either expressly or inherently, disclose a method for automated independent technical review, the method comprising: receiving an assay result of a radioactive waste container; generating a review template; determining whether said assay result is within a predetermined parameter based on said generating said review template; determining whether a review is required if said assay result is not within said predetermined parameter; and rejecting said assay result if said review is not required and said assay result is not within said predetermined parameter, as recited in Claim 1. Specifically, neither Johnson nor Anthony alone or in combination disclose generating a review template. Applicants agree with the Examiner that Johnson does not teach generating a review template. Applicants disagree with the

Examiner that Anthony teaches generating a review template at col. 5, lines 18-21. Rather, the templates disclosed by Anthony and referenced by the Examiner are chemical compounds used to influence crystal structure when forming silico-titanate compositions. The review template as disclosed in the Detailed Description of the Invention paragraphs 26 and 27 is a document not a chemical compound. Therefore, neither Johnson nor Anthony, alone or in combination teach or disclose all of the elements of Claim 1. Claims 45, 52, 56, 57, and 61 are believed to be allowable for the reasons given for Claim 1. Additionally, Claims 2-41 depend from Claim 1; thus, these claims are believed to be allowable due to their dependency on Claim 1.

Further, in regard to Claim 3, Applicants do not find “generating a comment template if said review is required” at Col. 5, lines 18-21 of Anthony as suggested by the Examiner. In contrast, Col. 5, lines 18-21 of Anthony teaches that TPAB, TBAB and the like may be used as templates in influencing crystal structure and that additionally, such reactants may control pH of the reactant mixture. Therefore, neither Johnson nor Anthony, alone or in combination teach or disclose all of the elements of Claim 3. For at least this reason, Claim 3 is patentable.

Further, in regard to Claim 4, Applicants agree with the Examiner that Johnson does not teach “generating a requirements field including said predetermined parameter.” However Applicant do not find “generating a requirements field including said predetermined parameter” at Col. 19, lines 8-11 of Anthony as suggested by the Examiner. In contrast, Col. 19, lines 8-11 of Anthony teaches that “when both surface area measurement, average pore size and pore size distribution parameters are taken together, definite trends can be established.” Therefore, neither Johnson nor Anthony, alone or in combination teach or disclose all of the elements of Claim 4. For at least this reason, Claim 4 is patentable.

Further, in regard to Claim 14, Applicants do not find “wherein said determining whether said radioactive material in said radioactive waste container is lumped includes comparing the mass ratio of two gamma energies” at Col. 4, lines 60-65 of Johnson as suggested by the Examiner. In contrast, Col. 4, lines 60-65 of Johnson teaches that “Both scanning detectors and assay detectors measure gamma radiation, although the scanning detectors check whether gamma radiation exists or not, and the assay detectors specifically assay the gamma radiation by ascertaining the energy spectrum produced by its component parts.” Therefore, neither Johnson nor Anthony, alone or in combination teach or disclose all of the elements of Claim 13. For at least this reason, Claim 14 is patentable.

Claims 6-9 and 16-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Anthony and further in view of Caldwell, U.S. Patent Number 4,497,768 (hereinafter "Caldwell") for the reasons stated on pages 7-10 of the Office Action. Applicants submit that Claims 6-9 and 16-17 are patentable at least because they depend from Claim 1.

Further, in regard to Claim 6, Applicants do not find "said determining whether said assay result is within said predetermined parameter includes determining whether a relative error for a plutonium isotope is within said predetermined parameter" at Col. 8, lines 1-12 of Caldwell as suggested by the Examiner. In contrast, Col. 8, lines 1-12 of Caldwell teaches "Curves a and b, display the time history of the neutron count rate arising from the simultaneous photon and neutron interrogation of 1 g of  $^{239}\text{Pu}$ . Here the contribution of each of the interrogating fluxes to the prompt and delayed neutron counts was investigated by comparing the detector response to a plutonium sample covered with an about 1.8 mm thick cadmium cover (Curve b) and to one without such a cover (Curve a). It is seen that the delayed neutrons are only weakly affected by the cadmium whereas the thermally-induced-fission, prompt neutrons are essentially absent with the cadmium present." Therefore, neither Johnson nor Anthony nor Caldwell, alone or in combination teach or disclose all of the elements of Claim 6. For at least this reason, Claim 6 is patentable. Applicants submit that Claims 7-9 are patentable at least because they depend from Claim 6.

Further, in regard to Claim 16, Applicants do not find "said determining whether said assay result is within said predetermined parameter includes comparing a total plutonium mass result to a qualification mass result" at Col. 8, lines 1-12 of Caldwell as suggested by the Examiner. In contrast, Col. 8, lines 1-12 of Caldwell teaches "Curves a and b, display the time history of the neutron count rate arising from the simultaneous photon and neutron interrogation of 1 g of  $^{239}\text{Pu}$ . Here the contribution of each of the interrogating fluxes to the prompt and delayed neutron counts was investigated by comparing the detector response to a plutonium sample covered with an about 1.8 mm thick cadmium cover (Curve b) and to one without such a cover (Curve a). It is seen that the delayed neutrons are only weakly affected by the cadmium whereas the thermally-induced-fission, prompt neutrons are essentially absent with the cadmium present." Therefore, neither Johnson nor Anthony nor Caldwell, alone or in combination teach or disclose all of the elements of Claim 16. For at least this reason, Claim 16 is patentable. Applicants submit that Claim 17 is patentable at least because it depends from Claim 6.

Claims 42-43, 53-54, and 58-59 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Caldwell for the reasons stated on pages 10-12 of the Office Action.

Regarding Claim 42, Applicants do not find “determining whether a first review is required if said relative error is not within said first predetermined parameter” at Col. 8, lines 1-12 of Caldwell as suggested by the Examiner. In contrast, Col. 8, lines 1-12 of Caldwell teaches “Curves a and b, display the time history of the neutron count rate arising from the simultaneous photon and neutron interrogation of 1 g of  $^{239}\text{Pu}$ . Here the contribution of each of the interrogating fluxes to the prompt and delayed neutron counts was investigated by comparing the detector response to a plutonium sample covered with an about 1.8 mm thick cadmium cover (Curve b) and to one without such a cover (Curve a). It is seen that the delayed neutrons are only weakly affected by the cadmium whereas the thermally-induced-fission, prompt neutrons are essentially absent with the cadmium present.” Therefore, neither Johnson nor Caldwell, alone or in combination teach or disclose all of the elements of Claim 42. For at least this reason, Claim 42 is patentable. For similar reasons, Applicants submit that Claims 53 and 58 are patentable over Johnson in view of Caldwell.

Regarding Claim 43, Applicants do not find “determining a total plutonium weight percent based on said assay result” at Col. 8, lines 1-12 of Caldwell as suggested by the Examiner. In contrast, Col. 8, lines 1-12 of Caldwell teaches “Curves a and b, display the time history of the neutron count rate arising from the simultaneous photon and neutron interrogation of 1 g of  $^{239}\text{Pu}$ . Here the contribution of each of the interrogating fluxes to the prompt and delayed neutron counts was investigated by comparing the detector response to a plutonium sample covered with an about 1.8 mm thick cadmium cover (Curve b) and to one without such a cover (Curve a). It is seen that the delayed neutrons are only weakly affected by the cadmium whereas the thermally-induced-fission, prompt neutrons are essentially absent with the cadmium present.” Therefore, neither Johnson nor Caldwell, alone or in combination teach or disclose all of the elements of Claim 43. For at least this reason, Claim 43 is patentable. For similar reasons, Applicants submit that Claims 54 and 59 are patentable over Johnson in view of Caldwell.

Claims 46-47 and 51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Anthony and further in view of Katoot, US Patent Number 6,184,030

(hereinafter “Katoot”) for the reasons stated on page 13 of the Office Action. Applicants submit that Claims 46-47 and 51 are patentable at least for the reasons that Claim 1 is patentable because Katoot does not cure the deficiencies of Johnson and Anthony with regards to generating a review template. Applicants further submit that there is no motivation to combine Katoot and Johnson in view of Anthony in the manner suggested by the Examiner. Even assuming, arguendo, that all elements of the invention are disclosed in the prior art, which they are not, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant’s invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levensgood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); MPEP § 2143.01. There is no teaching in the cited art to combine the references in an attempt to produce the claimed invention. Nor would such a combination have occurred to a person having ordinary skill in the art at the time the invention was made.

Finally, the rejection of claims 46-47 and 51 under 35 U.S.C. §103(a) is also improper because the Examiner has relied on nonanalogous art in this rejection. See *In Re Wood*, 599 F2d 1032, 202 USPQ 171 (CCPA 1979). More specifically, the Examiner has relied on Katoot, which is in the biologically active polymer art, in his rejection of the present invention, which is in the radioactive material handling art. A person of ordinary skill in the radioactive material handling art would not look to the biologically active polymer art to solve the problem treated by the claimed invention. In addition, Katoot does not deal with the same problem solved by the claimed invention. Katoot is directed to biologically active polymers that are useful for analyte detection and isolation. In sum, Katoot is not in the field of technology of the claimed invention, nor does it deal with the same problem solved by the claimed invention. Accordingly, Katoot is nonanalogous art, and the Examiner’s reliance on Katoot is, therefore, improper. For at least this

reason, the rejection of claims 46-47 and 51 under 35 U.S.C. §103(a) is improper, and should be reversed.

Claims 48-49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Caldwell and further in view of Katoot. Applicants submit that Claim 48 is patentable for at least the reasons that Claim 42 is patentable because Katoot does not cure the deficiencies of Johnson and Caldwell discussed above in regard to Claim 42. In addition, Applicants submit that Claim 49 is patentable for at least the reasons that Claim 43 is patentable because Katoot does not cure the deficiencies of Johnson and Caldwell discussed above in regard to Claim 43.

***Allowable Subject Matter***

The Examiner has stated that Claims 44, 50, 55, and 60 are allowable over the prior art of record.

In addition, the Examiner has stated that Claims 10, 15, 20-25, 27-32, and 34-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the base claim and any intervening claims. Applicants submit that for at least the foregoing reasons, Claim 1 is allowable and therefore Claims 10, 15, 20-25, 27-32 and 34-38 which depend from Claim 1 are also allowable in their present form.

***Conclusion***

It is believed that the foregoing drawing replacement sheets and remarks fully comply with the Office Action and that claims 1-62 are in condition for allowance. Accordingly, reconsideration and allowance is respectfully requested.

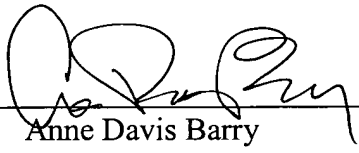
In the event the Examiner has any questions regarding this Amendment, Applicants' attorneys respectfully request the courtesy of a telephone conference.

In the event that there are any additional fees with respect to this Amendment, Applicants' attorneys respectfully request that such fees be withdrawn from Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

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IN THE DRAWINGS:

Please find attached replacement sheets for FIGS. 1-4.